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ABSTRACT

The term "image" has been employed in various ways to describe the practical knowledge teachers have derived from their own experiences. These images grounded in personal experience are also assumed to guide student teachers' thoughts and actions in the classroom. Adopting a case study method, this study examined two early childhood student teachers' teaching images and their classroom practice. Classroom observations, videotaping, interviews, written plans, personal journals, and reflections were the major sources of data. Based on an analysis of the data, this paper discusses: (1) early childhood student teachers' images of teaching in classroom practice; (2) changes in teaching images during the student teaching period; and (3) possible influential factors on student teachers' images. Findings indicated: student teachers hold specific teaching images before they start preservice training; these images are deeply rooted in their own experiences and appear to be ways of representing knowledge that could readily be translated into action; and the growth of student teachers' images may require teacher educators to consider how best to design training activities in which students' existing knowledge is scrutinized and challenged. (Contains 28 references.) (LL)

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Early Childhood Student Teachers' Images and Their Classroom Practice[1]

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Since the late 1970s', an approach to the study of teaching has developed which assumed that what teachers do is affected by what they think (Clark & Yinger, 1979). This approach suggests that teacher behavior is substantially influenced and even determined by teachers' thought processes. Teachers' planning (Ben-Peretz, 1975; Beyerbach, 1988; Calderhead, 1981, 1984; Clark & Elmore, 1981; Morine-Dershimer, 1978-1979; Peterson, Mark & Clark, 1978; Shavelson, 1983; Stroot & Morton, 1989; Yinger, 1979, 1980; Zahorik, 1970), teachers' interactive decision-making (Clark &Yinger, 1979; Peterson & Clark, 1978; Shavelson & Stern, 1981, 1983), and teachers' implicit theories, beliefs and images (Bae, 1990; Calderhead, 1984; Calderhead & Robson, 1991; Clandinin, 1985, 1986, 1989; Elbaz, 1983; Johnston, 1990, 1992; Li, 1992, Morine-Dershimer, 1978-1979) are encompassed within this domain. In this study, teachers' images were investigated.

The term "image" has been employed in various ways to describe teachers' practical knowledge which is readily accessible and applicable to coping with real-life situations. Teachers' images are largely derived from their own experiences. Some researchers have used the term to refer to general metaphors for thinking about teaching; for example, the teacher's image of "classroom as home" (Clandinin, 1986). Others have used the term to describe the overall concept that teachers have of a lesson; for example, an image of how a practical science lesson runs (Morine-Dershimer, 1978-79) or a composite of a teacher's beliefs, values, and feelings (Elbaz, 1981, 1983). Although the term "image" has been given different meanings, there are some commonalities underlying all these definitions. All of the researchers, directly or indirectly, have focused on image as an aspect of teachers' thought processes (Clandinin, 1986). Each one suggests that images are continually modified as a result of experiences and they provide a dynamic interrelationship or link between past, present and future (Bullough, 1989, 1992; Calderhead & Robson, 1991; Clandinin, 1985, 1986, 1989; Johnston, 1990, 1992). Images are also seen as being derived from personal experience and exist in a dynamic and interactive context. They frequently contain an affective component, being associated with particular feelings and attitudes (Calderhead & Robson, 1991; Clandinin, 1985, 1986). In this study, image is used to refer to student teachers' beliefs, values and knowledge of teaching. It also refer to student teachers' views of themselves as teachers. These images are assumed to guide student teachers' thoughts and actions in the classroom, and are firmly grounded in the individual's inner and outer experience.

Research has showed that both novice and experienced teachers enter the interactive phase of teaching with mental scripts called "images" (Calderhead, 1981; Calderhead & Robson, 1991; Clandinin, 1985, 1986; Elbaz, 1981, 1983; Morine-Dershimer, 1978-79). In addition, these images affect teachers' classroom instruction. Some researchers have also explored the use of teachers' images as a means of understanding the practical knowledge of teachers (Calderhead & Robson, 1991; Clandinin, 1985, 1985; Elbaz, 1981, 1983; Johnson, 1990, 1992). Practical knowledge is the knowledge teachers use in classroom situations, with an emphasis on the complexities of interactive teaching and thinking-in-action. In addition, studies of teachers' images indicate that teachers' past educational experiences, personal characteristics and family life have a strong influence on teachers' teaching images. These images are dynamic and may change in the process of teachers' professional development.

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Most studies of teachers' images have focused on experienced teachers, rather than novice teachers, including student teachers. The nature of student teachers' teaching images is unclear. Although there have been many studies of student teaching and its impact on novices (see, for example, Feiman-Nemser, 1983), little is known about what student teachers personal teaching images are, how these images change, and how those images influence their teaching practice. This study examined early childhood student teachers' teaching images and their classroom practice.

Research Questions:

This study explored two early childhood student teachers' teaching images in relation to their classroom practice. The following research questions were raised:

1. What are these early childhood student teachers' images of teaching?

2. Do these early childhood student teachers' images influence their classroom teaching? If so, how?

3. Do these early childhood student teachers' images of teaching change during student teaching? If so, how?

4. What are the possible influences on these early childhood student teachers' image?

Methods

A case study method was adopted in this study. Classroom observation, videotaping, interviews and student teachers' written plans, personal journals and reflections were the major sources of data.

Two early childhood student teachers, Melissa and Kay[2], were interviewed twelve times and nine times respectively over a period of one academic year. Most of interview questions were generated from classroom observations, videotapings and the student teachers' personal reflections. Interview questions centered around the basis of beliefs, values and knowledge of teaching. The questions explored the origins of these beliefs and how they influenced classroom practice. All interviews were audiotaped and later transcribed for analysis.

The classroom observations extended over a three month period. The two students were observed six times and seven times respectively. Observation field-notes were used to generate questions to elicit student teachers' teaching images and classroom practice during the interviews that followed. Each student teacher was videotaped four times in the classroom. These videotapes were used to stimulate student teachers' recall of their thinking during interactive teaching. Some of interview questions were generated from these videotaping. Other data sources included student teachers' written plans and personal journals, including their teaching activities, class notes, dialogue with cooperating teachers, observations notes of children and reflections about the teaching experiences.

All the data were carefully reviewed. During the review, some tentative categories emerged, for example, their goals for kindergarten education, their expectation of the student teaching experience, their problems in student teaching, their relationship with the classroom teachers and the children, and the resources used in the classroom. Some categories that seemed related were combined. After reviewing all categories again, four final categories were developed in terms of research questions: what images of teaching did these early childhood student teachers hold? how did their images of teaching

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[2] The names were changed to provide anonymity.

influence classroom practice? were there any changes in their images of teaching during student teaching practice? and what possible factors might have influenced their images of teaching?

Results and Conclusions

The findings of this study are discussed as follows:

Early Childhood Student Teachers' Images of Teaching in Classroom Practice

Based on the data, we found that the two student teachers, Melissa and Kay, held a wide range of teaching images related to their classroom practice. Melissa reflected the teaching images of providing hand-on experiences, creating cognitive conflict, paying attention to individual differences, providing integrated curriculum, emphasizing repeated exposure, language as a key to children's learning, and preparing for later schooling. Kay reflected the images of integrated curriculum, emphasizing routine and classroom management, questioning, and preparation for the first grade

Both Melissa and Kay thought that preparing children for later schooling was very important for the kindergarten. Each provided many language and math activities for children. Melissa's class was a Whole Language class, so many activities were related to reading, writing and speaking. In Kay's class, most of the learning time was also devoted to reading, writing and math. Melissa provided a variety of learning activities for children, giving children opportunities in different activity centers to learn writing, reading and math through concrete experience. Kay, on the other hand, provided lots of worksheets for children. In addition, Melissa wanted children to feel successful and develop positive self-esteem. While she was willing to prepare children for later schooling, she did not teach children the academic tasks directly. In contrast, Kay had a lot of the basic 3'Rs -- reading, writing and arithmetic -- learning in the class. She thought that if children didn't learn the basic skills, they would not succeed at all, and they were already behind when they started. The finding indicated that although these two student teachers seemed to have similar image, these were reflected in different way.

Both student teachers emphasized an integrated curriculum. Melissa insisted that each activity should be related to the unit being studied, and to different subject areas. Subject areas were not taught separately. For example, when Melissa did a mural in her "fish" unit, she provided the children with opportunities to count how many fish were in the mural, to freely tell stories about the mural, and to create their own fish. This activity was related to such subject areas as math, language, and art.

Kay also felt that activities should be tied into the unit being studied, and related to each other. For example, when she did a "dinosaur dash" activity, she asked the children to flip a coin --heads move 1 space, tails move 2 spaces. Children followed directions and moved around on the spaces. Kay mentioned that this activity was related to such subject areas as math, language, and social studies. Although Kay repeatedly mentioned that she emphasized an integrated curriculum, in fact she didn't reflected this image very well in her teaching. Kay's cooperating teacher had a lot of control over Kay's teaching. For example, she asked Kay to do reading series and worksheets daily in the class. So although these two student teachers both emphasized an integrated curriculum, one's image in practice, while the other didn't show it very well.

Each of these two student teachers also had their own specific teaching images that were reflected in their teaching practice. Melissa's special teaching images were: "emphasizing hands-on, concrete and primary experiences", "paying attention to individual children", "language as a key", and "emphasizing repeated exposure." Kay's images were "emphasizing questioning", and "having both a structured and child-centered classroom."

Melissa showed her images of "repeated exposure" and "hands-on experiences" in her teaching. For example, when she did the "fairy tale" unit, she read some tales about fish. She had done a "fish" unit before, and she wanted the children to have chances to explore fish again. She also provided children with opportunities to make puppets and to role-play. She believed that repeated exposure made children learn a lot. When she did the "fish" unit, she provided a variety of primary experiences to children, such as cooking fish, painting fish, setting up an aquarium, taking a field trip to a fish market, and doing a fish mural.

Melissa thought that paying attention to individual children was very important. She developed observation forms and conducted one-on-one writing conferences with each child. Through the observations and conferences, she would know the children's individual needs, so she could develop a special plan for each of them. Melissa said "I find myself making sure Holly gets enough attention" (personal reflection). "I wanted to make sure they got attention from me. . . make sure I touched all the kids' thought" (second interview). Melissa believed that different children had different needs and that the teacher should pay attention to these individual differences.

In the different subject areas, Melissa especially emphasized writing and reading. Melissa's class was a Whole Language class, so children were exposed to a broad language environment. Melissa had taken children's literature and language arts methods classes. She said that the writing center was her strongest area in teaching. Melissa encouraged children to write their own stories, and also asked them to create different story endings for such classics as The Three Little Pigs, and Beauty and Beast. She conducted one-on-one writing conferences to help children develop their writing skills. Melissa read different versions of stories to children and asked children to create their own versions. The children had many opportunities to explore language activities. Melissa also had individual writing plans for each child. She talked to each child individually and decided what she could do to help them.

Kay showed her image of "questioning" a lot in her teaching practice. Whatever she taught, she would ask questions first. For example, before she showed children animal fossils, she asked "Nobody saw real dinosaur before, how do we know we had dinosaur long, long time ago?" Do you know what paleontologists (or archaeologists) do?" "Who can tell me what fossil are?" Then she showed the children the fossils and then discussed them. Kay thought that asking questions would promote children's deeper thinking and provide them with chances to relate their prior knowledge to new knowledge.

Kay said that her ideal classroom teaching was "having centers, and having structure." She believed that structure was important, because children could learn a through structure.

Despite the fact that these two student teachers were seniors in the same program, with similar educational and teaching experiences, working with the same age level of children, and having similar requirement for student teaching, they did hold different images of ways of teaching. These images lead them to function very differently in the classroom.

Changes in Teaching Images During the Student Teaching Period

There were some changes in Melissa's and Kay's teaching images, although these changes weren't great. Both student teachers noted that their self-perception changed in terms of their image as teachers. Melissa said "I think my self-perception changed, I felt comfortable at the end of student teaching, being responsible for the entire classroom" (third post-interview). "I see myself as probably more capable, more confident about my ability to take a job, and successfully for children to learn in my class. . . . I feel myself more a professional teacher" (ninth interview). Kay changed her view of her ability to teach math. She said "I didn't feel very competent before in math because I didn't have a lot of

experiences, but now I feel more competent because I have a lot of experiences with that. Now, I know more about what this age group needs to learn and what and how you go about teaching them, and some good activities" (sixth interview). Kay felt more confident in teaching math in kindergarten.

Both Melissa and Kay changed their image about the "project approach" which they learned in their prekindergarten student teaching. Before their senior student teaching, they thought the project approach was fantastic, very integrative, and that children would learn a lot from the project approach. They didn't think they would use the project approach after student teaching or try it right away. Melissa thought that kindergarten teachers should provide a variety of units for children to explore and to build up their wider knowledge base. Teachers can't just focus on one single project for a long time. Kay thought there were something teachers had to teach in school. She would not use the project approach all the time, but she might try it very slowly.

After student teaching, Kay changed her image of classroom teaching, she said "I realize now how hard it is to just have one teacher in the classroom". "I think they have a lot of work, much more work than I thought. It's harder than I thought it would be" (sixth interview). Kay said she always felt tired -- sometimes exhausted -- after she left the class. She didn't have the energy to finish her work and to really pay attention to individual children because she had too much work to do. She did find out how complicated and hard teaching was.

Kay changed her teaching image from having centers all the time to providing more structure in class. She noted "Everything we have learned was about totally open instruction, totally free classroom, centers all the time. My classroom wasn't like that at all, but I think the kids in my classroom learned a lot. . . . I think my attitude changed a little bit more in that. I like a little more structure. I don't think it should be teacher-centered but I think that the children need more structures and they will learn a lot from these structures" (sixth interview). "I used to think that it was better to have all centers all the time, like the project approach. But I am beginning to think that children at this age need to have some structure" (third interview). She believed that in the more structured and more traditional classroom like the one in which she student taught, children would learn a lot. In her future teaching, she would like to have more structure in classroom, not having all free play centers all the time.

Possible Influential Factors on Early Childhood Student Teachers' Images

Some possible influences on these student teachers' images may be speculated. These speculations are based on the student teachers' reflections on their past and present personal education and teaching experiences.

Melissa thought that a lot of her university courses gave her ideas about how children learn, and how children acquire skills. Some courses also provided her with ideas about what to do in the classroom. She said "I think a lot of my course work introduced me to the theories, and philosophies" (third post-interview), "I have kind of better ideas about what to emphasize in writing [and reading], just because I had children's literature and language arts classes. . . . In my language arts class, she [my teacher] did give us suggestions about how to plan in writing" (fifth interview). In the beginning of student teaching, Melissa did graphing with the children. That idea also came from her math methods course in the university. Melissa thought her university courses provided lots of information for her to do her plans and to create her units. In her opinion, the university courses influenced her images of teaching.

Melissa's mother influenced her images of "paying attention to individual children", "emphasizing hands-on and primary experiences" and "emphasizing repeated exposures". Melissa's mother was an occupational therapist, so Melissa had a lot of chances to see how to deal with individual people, and

how to provide them with hand-on experiences. She said "I grew up with kind of professional language [and environment] on and on, so I probably learned a lot before I got [into the field]" (third post-interview). She believed that her mother affected her teaching images. For example she had specific behavior plans for Holly, and provided many concrete experiences for Michael [one child in her class] to work. Melissa also thought a lot of friends influenced her teaching ideas, including those who were outside of the university or who were working with children in other disciplines like speech, language, theater, and drama. For example, when she did "fairy tale" unit, she asked the children to do a dramatic performance. This idea came from her friend who was a theater major. She said when she planned her teaching, she brainstormed one-on-one with people, with her group of early childhood majors. In addition, she said her father, a scientist, provided her with good resources for science activities.

Melissa thought that she herself was the important factor in formulating her teaching image. For example, her enthusiasm about reading and writing affected what she did in her class. The reason she chose the "fairy tale" unit was because "I have been enjoying them [fairy tales] a lot, I took class on it, and I felt my knowledge base of fairy tale is pretty broad" (third interview). Her early learning experience also affected her image of "paying attention to individual children's needs". Melissa recalled "When I was a kid, I never kind of fit in the way teacher wanted. So I am interested in the kids who didn't quite fit, quite function smoothly in the school. They need help".

Both student teachers thought their cooperating teachers were an important influences on their teaching images. What Melissa's cooperating teacher did successfully in the class lead Melissa to confirm that an integrated curriculum, writing and reading, primary experiences, and routines were important and appropriate in the kindergarten classroom. Because this was a whole language classroom, Melissa experienced how language activities worked, and how children enjoyed learning in an integrated learning environment. Melissa and her cooperating teacher had similar teaching images; they each believed that providing children rich language experiences was important.

Kay said that her cooperating teacher was a good resource person. "She [her cooperating teacher] has a lot of information about activities, so I got a lot of things from her. She really gave me a lot of ideas" (third interview). Kay noted that she had learned a lot about communication with the parents and about classroom management from her cooperating teacher. For example, Kay always said "Sit in the kindergarten way," and "Show me in the kindergarten way" in her teaching, phrases her cooperating teacher used. She thought this was a good way to get children's attention. Kay used external reinforcement in the classroom. She learned this from her cooperating teacher too. Kay also mentioned that she would like to do almost everything her cooperating teacher did in her future teaching, because she thought her cooperating teacher had a lot of good teaching ideas. Kay also wanted to have a structured class, because she thought children in this kind of structured class learn more than children in an open education class. What she saw in the student teaching made her believe that in more structured and more traditional classes, the children learned more.

Kay also said "my supervisor definitely influenced me with her idea about questioning, always questioning the children" (third post-interview). "I got a lot of it [asking question] from my supervisor and cooperating teacher" (second post-interview). Many times Kay's supervisor suggested that Kay ask question in her teaching. "In reviewing books, ask students rather than tell them" (observation comments, 10/17/91) "instead of telling them, could you ask them , because they can decide themselves" (observation comments, 11/14/91). Kay admitted that asking questions did make children think, and made the activity more interesting. However, comparing the influence of her cooperating teacher with that of her supervisor, Kay thought her supervisor influenced her less, because "we only have a short amount of time to discuss and talk." "Well, obviously because I was with my cooperating teacher more, and there were more things going on in there that I could actually see her philosophy and

ideas implementation. I am sure that influenced me more. I mean everyone said 'you come to act like your cooperating teacher' because in there she was the only model for what you supposed to be doing" (third post-interview). Melissa held a similar same opinion.

In addition to the influences from her supervisor and cooperating teacher, Kay mentioned that a lot of her friends' parents were teachers, and they gave her ideas about teaching. Then teachers' magazines, other student teachers, and the professors in the university also influenced her.

Based on these results, the following conclusions could be drawn:

1. These two student teachers each began their classroom teaching with a set of beliefs about teaching. They shared some of the same teaching beliefs, such as "preparing children for the later schooling", and "emphasizing integrated curriculum", However they reflected these beliefs differently in practice. They also held some different teaching beliefs. For example, Melissa had teaching beliefs of "creating cognitive conflict for children" and "paying attention to individual children", and Kay had teaching belief of "emphasizing questioning". Based on Melissa's teaching beliefs, three overarching teaching images emerged -- language as the key, providing hands-on experience, and paying attention to individual children. Kay reflected two important teaching images -- preparing children for first grade, and emphasizing routine and classroom management. These images guided student teachers' teaching practice in the classroom.

2. The bases for these student teachers' images were a little bit different. For Melissa, the origins of the image was: in her professional experiences, including university courses and teaching experiences, her own school experiences, her family life, and her own personality. The origin of the Kay's image was in her professional preparation, especially in this student teaching experience, and in her own personality.

3. The student teaching site, and especially the cooperating teachers' conceptions of practice and their attitude to student teachers, impacted on these student teachers' images. Melissa's teaching images became solid because of the positive and supportive environment she was in. Melissa used the resources from her teaching environment to grow. Kay became more like her cooperating teacher, a more traditional teacher. The power relationship between the cooperating teachers and the student teachers seemed to influence what student teachers did in their teaching practice.

4. These student teachers maintained many teaching beliefs and images over the period of student teaching, only some of the teaching beliefs change as they passed through this teaching experience. Both Melissa and Kay changed their idea about the project approach which they learned in their prekindergarten student teaching. Melissa also changed her self-perception. Kay changed her image about classroom teaching. She realized how hard teaching was. Kay also became comfortable in a more structured classroom.

5. The university supervisors didn't seem to have a great deal of influence on these student teachers' teaching images. Only Kay mentioned her belief of "emphasizing questioning" as being influenced by her supervisor.

This study gained some general understanding of two early childhood student teachers' teaching images and their classroom practice. Student teachers hold specific teaching images before they start their preservice training. These images are deeply rooted in their own experiences and appear to be ways of representing knowledge that could readily be translated into action. These values, beliefs and knowledge should be expected to continue to influence student teachers' personal and professional development.

This suggests that teacher educators need to understand how the students construct their teaching knowledge. A number of questions remain. For example:

- What teaching images that each student holds when she/he enters the program?

- Why and how do these teaching images evolve?

- What interactions might these preconceptions have with the teacher training program?

- How can teacher educator help student with these interactions in helping them to become teacher?

The grow of student teachers' images may require teacher educators to consider how best to design training activities in which students' existing knowledge is scrutinized and challenged, and to monitor the effectiveness of these activities. This study points out how importance of understanding student teachers' teaching images in order to help them become more elaborate and competent in teaching.

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